

### **Abstract**

Fluid-based switches and methods for producing the same are disclosed.

In one embodiment, a method for producing a switch comprises depositing a first alignment pad on a first substrate, depositing a second alignment pad on a second substrate with a perimeter relief surrounding the second alignment pad, depositing solder on at least one of the alignment pads, depositing a switching fluid on the first substrate, mating the first substrate to the second substrate by aligning the alignment pads and heating the solder, the substrates defining therebetween a cavity holding the switching fluid, the cavity being sized to allow movement of the switching fluid between first and second states to form a liquid switch, forming a perimeter ring around the liquid switch on at least one of the two substrates, depositing wettable material in the perimeter ring, depositing solder paste containing uncured epoxy on the wettable material in the perimeter ring, and reflowing the solder paste.